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Título del trabajo: Fundamentals of Mergers and Acquisitions. Differences in acquirers' returns between Domestic and International M&A in Europe

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RESUMEN

El objetivo principal de este trabajo es explicar de qué tratan las operaciones de Fusión y Adquisición, sus principales causas y motivaciones. Se resumirá la evolución de las operaciones donde se pueden ver las principales características de cada oleada. Este documento también tiene como objetivos profundizar en las fusiones y adquisiciones que tienen lugar en el ámbito internacional, sus ventajas e inconvenientes además de un estudio empírico y estadístico de las operaciones realizadas entre el 2011 y 2016. Se han incluido gráficos y tablas para apoyar y comprender esta investigación.

ABSTRACT

The main purpose of this paper is to explain what Mergers and Acquisitions (M&A) are about, their main causes and motivations. It will be summarized the evolution of the M&A overtime as it can be seen the main features of each wave. This document also aims to go deeper through the M&A which take place in the international environment, pointing out the advantages and disadvantages of these ventures. Additionally, the results of an empirical and statistical study of a sample of M&A made by European acquirer companies during the period 2011-2016, are presented. Graphs and tables have been included in this report to support and understand this research.

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1. INTRODUCTION

The opening of new markets and the globalization have created a higher level of rivalry between companies, which compete in terms if costs, size and technological capacity. Over the years, companies have used various methods of growth in order to increase their market importance and generate value. This paper focuses on mergers and acquisitions that will now be referred as M&A.

M&A have been taking place is waves for a long time. It is evident that they have been carried out regularly but there are periods in which the number of concentration of firms is highly superior. All waves are characterized by the fact that they begin in periods of economic prosperity and end due to economic crisis generated by certain circumstances. Nowadays there is a critical period for the economy due to the global pandemic. However, businesses continue to work to keep the company from stagnating. The need to protect and strengthen themselves facing the uncertain global situation has multiplied alliances between direct rivals. In the case of Spain, it has abandoned international mergers and decided to focus on the domestic market in order to strength the country (Expansión newspaper, 2/05/ 2020). A clear example of this is the merger of two financial sector entities with great weight, Caixa Bank and Bankia which together will constitute one of the biggest bank entities in Europe.

The argumentative line of this dissertation could be briefly summarized in the following points:

- The first one explains the historical context regarding M&A, the six principal waves and the main definitions regarding this topic. It is the most theoretical part of this research. It will help to those who do not have any knowledge of the subject to understand what M&A are about.
- The second part focuses on the international environment. Here, it is explained why these types of transactions should or should not take place, their main motivations and the risks companies have to face during the transactions.
- The third part provides an overview of the European M&A market from 2011 to 2016. At this part of the dissertation, there will be analyzed data which will show the path of these deals, which are the main industries predominating, the principal geographic markets where the transactions take place and finally, a

statistical study which will show how the announcement of the M&A can affect the value of the acquirers' return entities.

- At the end of this paper, the main conclusions are presented.

2. EVOLUTION OF THE MERGER WAVES

M&A have been taking place in waves for a long time. It is evident that this type of deals is carried out regularly but there are periods in which the number of concentration of firms is highly superior.

This part of the document, is going to analyze each merger wave since the late 1890s to the early 2000s, which are the main motives of why did it end and its impact. There have been six head waves of merger ventures to date, mainly focused in the US, although there is also certain tendency at a global level.

2.1 THE FIRST WAVE (1897-1904): MONOPOLISTIC WAVE

This first wave started during the late 1890s, characterized by the horizontal consolidation of the industrial production. Not so far from this date, it took place a strong economic depression, "The 1883's Depression". This was caused by deflation, the gold standard and monetary policy; firms were producing at a higher rate than society was consuming, developing unemployment and cutting backs in production, and government extravagance. However, as the years went by, the absorptions, acquisitions and the mergers of some of the industrial sectors started and they did not stopped until the end of the wave. The main M&A took place at the mineral, food, transport, metallurgy and machinery industries.

This process was mainly composed by horizontal consolidations, meaning that the companies enrolling these ventures belonged to the same industry. Their main goal was to increase their market power by eliminating redundancies and utilizing untapped synergies, as well as seeking and taking advantage of the scale economies[1].

[1] Scale economies: Business model consisting in the reduction of costs while the volume of production increases.

This period became known as an era of expansion and innovation, in particular the development of railway infrastructure, helpful element for isolated markets turning them to continental markets. A large portion of the miner and metallurgic industry mergers confirmed the reduction of transportation costs with respect to their goods' prices.

According to Stigler (1950), the development of modern corporations with limited liabilities and the modern capital markets triggered the potential of profitable monopolistic gains through the mergers.

This first wave evinced the importance of horizontal consolidations plus the economies of scale created and obtaining market power through the resultant business. However, the created monopolies caused the negative reaction of authorities. In 1904 a decision on Northern Securities made clear the end of the wave and the prohibition of monopolistic mergers by anti-trust laws such as the Sherman Antitrust Act[2].

2.2 THE SECOND WAVE (1916-1929): OLIGOPOLISTIC WAVE

The second merger wave started in the late 1910s, during the First World War and it will officially come to an end with the Great Depression in 1929. Stigler (1950) classifies this wave as the "oligopoly wave" due to the large proportion of ventures created during this period according to the oligopoly's characteristics. The result did not derivate into monopolies thanks to the anti-trust legislation which reduced the market power of the dominant firms. Stigler suggests that the Sherman Law was the principal cause for the variation from monopolistic to oligopolistic merger in the USA. At the end of this wave, industries were not longer dominated by the largest corporation, but rather by two or more companies. Moreover, the capital requirements of these transactions and the tendency of rivals to grow in number and size, the dominant firms were limited by the new barriers which hampered the monopolistic mergers.

As it has been mentioned above, the second wave came to an end in 1929 when the Great Depression arrived. In spite of this, the highest value was reached in 1932.

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[2] Sherman Antitrus Act: Its main goal was to restrict the combination of entities which could suppose a limit to competition unlawful.

The second merger wave was given diminished attention due to the stock market crack and the global economic depression. However, it is essential to highlight the importance of the vertical integrations and the efficient improvements conducted during this phase plus the generation of the known conglomerate ventures which will lead the following merger wave.

2.3 THE THIRD WAVE (1965-1969): CONGLOMERATED WAVE

The activity of M&A market slowed down significantly the Great Depression and the Second World War. It was not until 1965 when another merger wave took place. This conglomerated wave receives this name as the 80% of the ventures developed were under those conditions.

The third wave gave rise to the concept of diversification which benefited firms from growth opportunities in new product markets by building large conglomerates. This method helped to reduce the cash flow volatility and diversification of the risk, and introduced the internal capital market as an alternative for imperfect external capital markets. As the new mergers were composed by varied businesses whose cash flows were not correlated between them, it was possible to reduce the shareholders' risk.

The trend of enrolling conglomerated ventures comes from the Celler-Kefauver Act (1950) which its main goal was to improve the anti-monopoly terms of the Clayton Act of 1914. The first legislation mentioned took care of maintaining the choice capacity of the consumer in the market. This is why if a company wanted to grow through M&A, the only way was by creating joint ventures.

One of the advantages of these conglomerated ventures is the reduction of funding and transaction costs by the diversification of the parent company.

According to Sudarsanam (2003), during this third wave, the average of corporations active in unrelated business increased 12% among 500 companies, reaching 21%. This data suggests that diversification played a significant role during this process.

Once again, the economy was affected at a new critical point in the early 1970s. This was when oil crisis led the global economy into recession and brought the third merger wave to its end.

2.4 THE FOURTH WAVE (1981-1989): HOSTILE WAVE

The following merger was quite different from the one explained previously. This merger is characterized by its hostile bids i.e. the bids did not have the target's management approval, and as highly leveraged. Foremost, the size of the business' target was also larger than the waves mentioned before.

If the previous wave was about the creation of big conglomerates, this one is about the opposite. They consider more valuable the different pieces by their own than all together, which caused negative synergies. These acquisitions imply two important issues, the first one is disagreements between internal executives and the second issue is the purchase's finance.

Sudarsaman (2003) declares that during this fourth wave divestitures reached about 20-40% of the M&A activity. Jensen (1986a, 1988, 1993) affirms the 1980s ventures were driven by a failure in the US corporations internal governance. According to this author, corporate mismanagement during the oil crisis caused the reaction of the capital markets. The benefits gained from the oil crisis were spent on excessive oil exploration and diversification. In any case, the developments in technology and regulation of anti-trust laws led to a large amount of excess capacity in many industries.

If the third wave is compared with the fourth one, the number of M&A is higher; however this wave will change the perspective of this type of deals. Emergence of new financing methods such as bank debt or junk bonds, as well as changes in antitrust policies or the innovations in the electronic industry were the principal cause for this process.

After 1988 M&A activity registered a significant decline and another stock market crash represented by the bankruptcy of the so called "investment bank Drexel, Burham, Lambert" specialized in junk bonds, ends this fourth wave.

2.5 THE FIFTH WAVE (1993-2000): WAVE OF THE TMT

By the time the economic recession ended, the fifth merger wave started immediately. It was supposed to last for a decade and it was going to reach inconceivable values particularly in the market value of the participant companies.

This wave can be divided into two different parts.

- The first one comprises from 1993 to 1997 and it wants to avoid repeating the mistakes of the previous one. With this aim, there were more mergers than acquisitions avoiding the surplus of leverage; the goal was to increase the number of friendly ventures over the hostile one.
- The second phase was from 1997 to 2000, it arranged the takeovers carried out by transactions that have Internet as a base. The prices suffered a highly increase in order to be able to acquire Telecommunication, Media and Technology companies (TMT), these are paid with own shares which were also overvalued.

Andrade *et al.* (2001a) sees the mergers during this period as takeovers where the parties, often in closely related industries, negotiate a friendly venture. This is not as the previous merger wave takeovers. Major industries turned more consolidated by related acquisitions, paid for by stocks.

The end of the wave came from an economic recession. On February 2000, the internet bubble was detonated and the stock market collapsed.

2.6 THE SIXTH WAVE (2003-2007): THE GLOBALIZATION WAVE

The last merger wave started during the first decade of the XXI century. This phase is affected by various important events such as the la continuation of the Internet's bubble and the sadly 11th September 2001 terrorist attack in the US. These events caused an important deterioration in the economy so the American National Reserve had to reduce the interest rates with the objective of bringing back the economy. The result was the increase of financial resources which funded not only a new real estate bubble, but also this new M&A process.

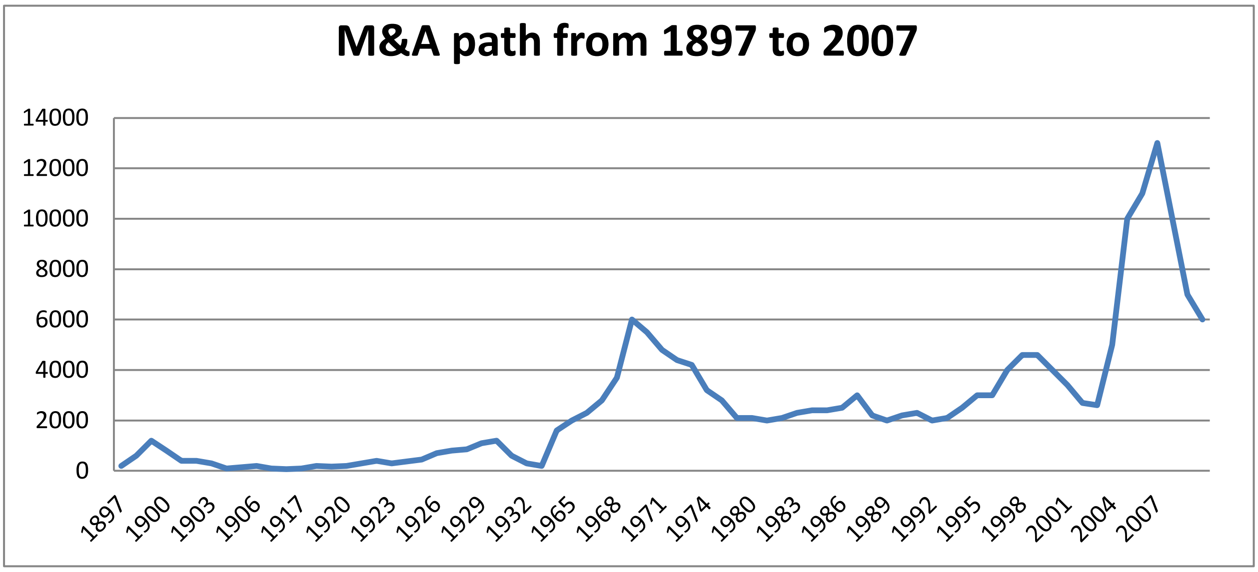
This sixth wave is characterized by two main factors. First of all, the globalization and the second one is payment method of the mergers. Companies sought global scope therefore the number of transnational acquisitions increased significantly with respect to the previous M&A waves. Most part of the acquisitions were friendly takeovers; except for the Asian's which were focused on the basic competition turning into more hostiles and expensive; and the favorite payment method was by cash financed by corporate cash-holdings or debt.

The principal industries affected by the globalization wave were composed by banking, utility industries, media & telecommunication which more orientated to offer services to the consumers.

The end of the sixth wave came when in 2007 the financial crisis exploited and one year later a financial collapse cut down the interbank financing leaving the M&A without funds. Numerous bad acquisitions could not be dissolved as there were none to purchase them being a necessity to reduce prices to the maximum in order to settle the assets.

The path of all the merger waves can be seen in the following graph.

Figure 1.1. Merger and acquisition evolution from 1897 to 2007



Source: Own elaboration base from *Las oleadas de las fusions y adquisicones de empresas: análisis restrospectivo comparado.* Mascareñas, J. (2013)

Table 1.1summarizes the different characteristic factors of each wave:

Table 1.1. Merger waves evolution

	1º Wave	**2º Wave**	**3º Wave**	**4º Wave**	**5º Wave**	**6º Wave**
Period	1897-1907	1916-1932	1963-1976	1980-1991	1993-2000	2020-2008
Predominant means of payment	Cash	Equity	Equity	Cash/Debt	Equity	Cash/Debt
Predominant nature of M&A	Friendly	Friendly	Friendly	Hostile	Friendly	Friendly
Main industries	Steel Production Hydraulic Power Textiles	Food Steam Engines Steel Railways	Electricity Chemicals Combustion Engines	Oil&Gas Textiles Misc. Manufacturing Non-depositary credit	Metal mining Media & telecom Banking Real Estates Hotels	Banking Media & telecom Utilities
Key attributes	Merging to form monopolies Horizontal consolidation of production	Move towards oligopolies	Diversification Conglomerate building	Hostile LBO using bank debt and junk bonds Split up 1960s conglomerates Efficiency gains	Related mergers Consolidation of major industries Response to deregulation Stock payments	Global scope Cross-border acquisitions Cash payments Friendly negotiations
Begining of wave	Economic expansion New laws on incorporations Technological innovation	Economic recovery Better enforcement of antitrust laws	Strengthening laws on anti-competitive M&A's Economic recovery after WW2	Deregulation of financial sector Economic recovery	Strong economic growth Deregulation and privatization	International growth
End of the wave	Stock market cash First World War	The Great Depression	Market crash due to an oil crisis	Stock market crash	Burst of the internet bubble 9/11 terrorist attack	Burst of real estate bubble Financial collapse

Source: Own elaboration from *M&A waves and its evolution through history*. T.J.A. Nouwen. (2011) &. *Mergers and acquisitions: a review. Part 1* Yaghoubi, R (2015).

3. TYPOLOGY OF THE M&A

Once the historic context has been described and the reasons of the origin and culmination of the merger waves have been explained, we are going to go through the typology of these transactions. But firstly, a brief remainder about what M&A are about: Mergers and acquisitions consist in the consolidation of companies or assets through different types of financial transactions such as mergers, acquisitions, consolidations, tender offers, purchase of assets and management acquisitions.

Even if M&A are used as the same operation, they hold different meanings. Mergers occur whenever two independent partnerships, approximately of the same size, create a completely new entity, rather than remain separately owned and operated. In the case of acquisitions, one company takes over the control of a second one, supposing a stable and long-lasting modification of the control of the target entity so the acquirer company would own part of the assets. However, in the case of a merger, the totality of the target's assets will be owned by the acquirer entity.

These transactions can be classified according to their deal attitude; this is whether they are friendly or hostile. A friendly deal attitude in a target company's management and board of directors agree to be absorbed by an acquiring company. On the other hand, hostile takeovers occur when the target company's management does not want the deal to go through. Hostile mergers can be accomplished through neither a tender offer nor a proxy fight. They can cause an increment of the paid price due to the target company's refusal causing a negative assessment from the acquiring shareholders.

3.1 TYPES OF MERGERS

The first criterion analyzed of these transactions is the existent relationship between activities performed by the companies involved in the deal and its economic impact. Here there can be found horizontal, vertical, conglomerated and conglomerated mergers.

Horizontal mergers occur between companies which share the same product line and market. The goal is to look for scale economies or increase the market power as the competitiveness is reduced. The synergies and potential gains in the market share will be greater for the merging firms.

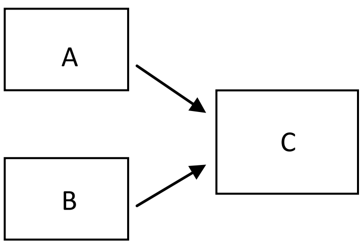
In the case of vertical mergers, the process is between two or more companies that provide different supply chain function for a common good or service. There is forward and backward integrations, depending on where the target company is when it is bought at the supply chain. This merger will cause to augment synergies, gain more control of the supply chain process and rise business. The result of vertical integration is cost reduction and increment of productivity and efficiency of the company.

When a company purchases another company which its business is not related with the acquirer's, the transaction is known as conglomerated merger. The ensemble of companies can or can not engage the same market business as well as belonging or not to the same industry. This is a more risky model as it reduces the cash flow volatility.

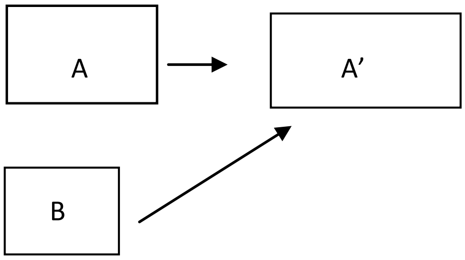
Finally, conglomerate mergers implicate two companies in the same industry but different business lines. They use to share similar distribution channels and provide synergies for the merger. The acquired firm is either an extension of a product line or a market related to the acquiring firm. The acquirer company uses this as a growth strategy, as an opportunity to expand their product line or gain new market shares.

According to the legal status the mergers would be classified as:

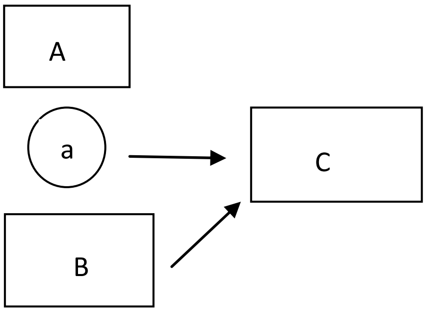
Pure mergers come up between companies with similar economic power. Two or more corporations become one. The legal entity of the companies involved, cease to exist after the process, while their patrimony is integrated in the new entity. The assets and liabilities of the corporations taking part are still recognized. After the process, a new administrative body has to be elected.



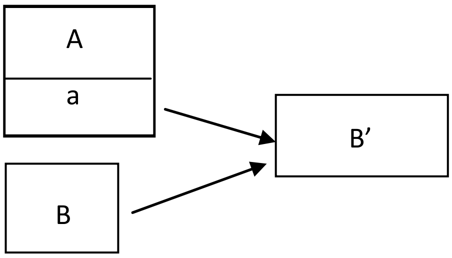
Mergers through absorption cause the disappearance of the absorbed entity, integrating its patrimony to the receptive's as well as their shareholders. Generally, they take place when the absorbent company has greater economic power than the absorbed entity. The dominant company will maintain its administrative body which will be in charge of managing the absorbed patrimony.



Finally, mergers with partial contribution of assets can result in two different manners. The first of all consists in one of the participant entities provide a part of its patrimony for creating the new corporation while the other yields its totality.



The second option is similar to a merger through absorption. In this case, instead of creating a new company, the entity will absorb the proportion of the patrimony provided by the other participant entity.



3.2 TYPES OF ACQUISITIONS

As opposed to mergers, the acquirer company only has a partial control of the acquired entity. Consequently, the acquirer takes a significant portion of the shares as well as the control rights over the acquired entity management. Both corporations preserve their own legal entity.

Acquisitions can be performed through the assets or the shares of an acquired company. If the take-over is fulfilled through assets, this will consist in buying out some of them and even liabilities from the target, company conducting a direct payment to such entity instead of to its shareholders thus the purchasing corporation will not be concern about the minority shareholders.

So long as the seller company continues to have enough assets to perform its activity, the money received from the assets' sale can be distributed as dividends or it can be earmarked as new investments otherwise, if the seller entity ran out of assets to perform its activity, the money received should be allocated into different companies shares. Therefore, the seller entity would become a financial investment company.

In the case of acquiring shares from another entity, the acquirer company makes the payment through its liquid assets, own shares or bonds issued by itself. The shareholders of the acquired entity can exercise their right to sell their shares if they were interested in the offer.

This type of acquisitions is more direct and simple in legal terms as the only assets transferred are the target entity shares. There are occasions were the purchase of shares is more complex since there could be a high number of shareholders and the acquirer entity has to negotiate with each one of them.

As opposed to mergers, the directors of the participant companies reach an agreement which will have to be validated at the shareholders' meeting. However, when a takeover bid [3]is carried out, the agreement is fulfilled by the acquirer company and the

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[3] Takeover Bid: Oferta Pública de Adquisición (OPA).

acquired entity shareholders; hence the greater decision making capacity of the shareholders in these transactions.

Takeover bids offer publicly the intention of the shares purchase at a fixed price. Such price is usually paid in cash but can also be in shares or a mixture of both. The aim of these transactions is to ensure the control of the acquired company but without including it within the purchasing entity.

It is the bidding company that establishes the conditions on the volume and price to carry out the purchase operation. Once the conditions are known, the purchaser can condition the acquisition in order to obtain control of a high percentage of the shares, indicating in this way that it wishes to obtain at least more than 50% until reaching 100%. However, the decision to accept or reject the offer depends on the shareholders from the acquired entity. The executives are responsible for determining the deal attitude, friendly or hostile; this will depend on whether or not they agree with the proposal.

4. MAIN MOTIVATIONS AND CAUSES FOR M&A

There are numerous motives why M&A are carried out but one key factor stands out among them, the creation of value. The value of all the companies together must be greater than the sum of each one of them.

Once more, the works of various authors have been analyzed, including Zozaya (2007), Mascareñas (2005), and Cuervo (2012). Their studies explain the most important motives in order to carry out M&A are:

- The <u>improvement of the company's efficiency</u>. The progress can be reached through the so called synergies i.e. when two or more entities obtain better results and operate more efficiently together rather than separately. Synergies can be either operatives or financial. Operative synergies lead to economies of scale, which allows an increase in production volume as the fixed cost is reduced. The negotiation power grows allowing an increase in profitability that will provide a greater market share. The productive synergies can also derive in economies of scope that generate an increase of the income when sharing productive processes of the offered products or services. Efficiency is improved through the process of vertical integration. Secondly, when financial synergies allow reducing the capital cost, this is the minimum profitability required by the investors and lenders.

Another way to improve the efficiency of the company is by eliminating inefficient management. In cases where mismanagement exists, the company generates less wealth than it could potentially produce. Companies with better management decide to buy these entities and improve their businesses by cutting costs, increasing profit or stopping their fall and thus, they put it on the path to recovery.

- Through horizontal integrations, reduction of competition between companies thus will increase market power over competitors. The influence on the rest of the companies can be greater allowing fixing the prices of the products.
  The increase of market power also allows to cross the entrance barriers to new sectors and geographic markets as well as to face its rivals in terms of costs, size and/or technological capacity.

- M&A accelerate the growth process by allowing the increase of size by increasing their customer base or by accessing a new technology that will lead to a new production process and / or product.
  The business growth can reduce the risk since it is considered less rigorous to merge with a company in an existing market instead of investing own resources to tie up that same market.

- To avoid agency problems. According to Zozaya (2007), in companies whose owners are not at the same time the managers of the company, agency problems may arise because the objectives of both agents may not coincide. Managers seek to maximize value for shareholders, while executives have as their main objective to maximize their power, economic or personal growth.

This strategy acts as a corrective mechanism of the market; the problems of agency are detected and derive in a devaluation of the entity's shares.

- Tax incentives. Just as there are productive and financial synergies, there is a third type which is of a fiscal nature. These seek to reduce the payment of taxes by both companies, the acquirer and the acquired, since the tax burden will be lower jointly than separately. They can be created by loss compensation, tax concessions, and revaluation of depreciable assets or by tax savings during complementary cycles. For instance, if a company that generates profit may be interested in buying another company that has been accumulating losses and thus be able to benefit from the reduction of taxes corresponding to negative results from previous years. In case there are tax benefits after the M&A, the company will employ them and thus offset taxable benefits. However, the tax authorities do not usually allow tax reductions due to losses of the acquired company if the reason for the merger was purely tax-related.

- Diversification. It occurs when a company is acquired by another with a different product and market than the one acquired, which leads to a diversification of its financial transaction and in turn of the economic risk of the company.

  In case of slow growth, diversification can be used as a means of acceleration. Through it, market fluctuations can be eliminated and risk reduced, favoring the creation of financial synergies.

- Limelight and personal motivation of the management team. This last motivation does not generate economic wealth for the company. For ego reasons, managers prefer to lead larger companies and thus increase their power and prestige by maximizing their own utility function.

Mergers and acquisitions coincide with the stages of economic expansion as mentioned above. They involve factors external to the companies that facilitate the transaction. These are the macroeconomic reasons:

- Political decisions. They are the result of legislation and different regulations. The creation of free trade zones produces changes in the business environment causing an increase in competition. Deregulations in turn produce positive changes on these trades.
  Regulatory changes stimulate competition and break down artificial barriers. In sectors such as telecommunications, health, defense or the financial sector, they are the main ones to carry out M&A due to the amount of changes produced in their regulations during the last years.

- Globalization and the opening of international markets have increased the competition that companies have to face nowadays, competing in terms of cost, size and technological capacity.

- With respect to technological advancement, a crucial factor in the present day, it is also responsible for increasing competition between companies. It favors the acquisition of technological companies by other less advanced that need them to grow or survive.

5. INTERNATIONALIZATION CONTEXT

The internationalization of markets arises as a consequence of globalization. This consists of an economic process through which there are technological development, advances in communication, reduction in information and transport costs which allow companies to expand their geographical scope and thus enter to other countries through various strategies. Cross-border mergers have been gaining weight as time has passed, driven by global economic and political stability as well as the low cost of debt.

Internationalization favors the search for business opportunities in foreign markets while promoting competition, which is considered a beneficial aspect as long as codes of ethics are established, explicitly indicate respect for the participant agents as well as for the environment in which is carried out.

Growing via M&A is an effective formula with which companies reduce costs, increase their size and above all is the perfect strategy to compete in international markets. According to Feito and Menémdez (2011), "*Business growth through mergers and acquisitions is a fundamental strategy to compete in globalized international markets.*"

Transnational takeovers have gradually increased worldwide, from 23% of the total merge volume in 1998 to 45% in 2007. Feito (2007) affirms that the empirical investigations point out that the companies of United States and United Kingdom have led the market of international ventures during the 90s. M&A are strategies that are in line with the situation of each country, reflecting the circumstances and needs of their growth.

Both international and domestic mergers may have similar motivations. However, there are variables such as the cost of information product of the physical distance, the language, the currency, the financial and economic regulation of the country as well as the macroeconomic situation of other countries; they are important aspects to consider in transnational deals.

National boundaries may cause frictions that determine firm boundaries. In general, as it has been already mentioned, mergers occur when the managers of the acquiring firm perceive that the value of the combined entities is greater than the sum of both separately. The change in value may be caused by either contracting costs as it can be lower within than across firms, or creating production efficiencies in the combining firms.

Regarding cross border mergers, here are presented the main factors that may potentially affect the likelihood of them:

- The cultural identity of the countries may increase the contacting costs associated with combining two firms across borders caused by the differences in the language, politics, religion, etc or the existence of longstanding feuds.
- Physical distance increases costs of combining firms as well.

- Corporate governance considerations can also affect the likelihood of cross border takeovers.

Generally, it is predicted that firms in countries that promote governance through better legal and accounting standards, have a more developed M&A market. They will tend to acquire firms in countries with lower quality governance. La Porta *et al*. (1998) classifies in his seminar paper these countries as Common Law countries[4], in the other hand the countries which have lower legal and accounting standards follow Civil Law[5]. Being acquired by companies from countries with better institutional and legal quality contributes to an improvement in the efficiency of corporate governance of acquisitions and a reduction in financing costs. Developed market acquirers are likely to benefit more from weaker contracting environments in emerging markets.

Markets in different countries are not perfectly integrated. Valuation differences across markets can motivate cross-border transactions. How can valuation differences lead transnational takeovers? They depend on whether the participants believe these movements to be temporary or permanent.

Temporary valuation differences make cross-border acquisitions to effectively arbitrage these differences by leading to expect profits for the acquirers. There is a behavioral model developed by Shleifer and Vishny (2003) in which firms values deviate from their fundamentals. The managers of an overvalued acquirer company have incentives to issue shares at an inflated price in order to purchase assets of under-valuated or cheaper targets. This transaction transfers the value to the shareholders of the acquiring firm by arbitrage the price differences between the entities' stock prices. The main factor of the model is that the source of valuation difference is private information owned by the managers. Other authors argue that cross border venture may

[4] Common Law countries: Countries that usually were part of the British colonies and protectorates, including the United States. They are countries with greater transparency and more developed financial markets.

[5] Civil Law countries: Countries that were French, Dutch, German, Spanish or Portuguese's colonies or protectorates to which Central America and South America are added. Civil law system is more perceptive tan an Anglo-Saxon one. However, the government must still consider whether specific legislation is needed to limit the scope of certain restrictions or sector-specific legislation. They have lower legal and institutional quality and are more likely to be acquired.

occur as a consequence of mispricing securities from fluctuations in local investor's risk aversion of from irrational expectations about market's value, implying that managers of the target companies would be willing to accept the payment in a temporary depreciated currency or overvalued stock.

If valuations are considered as permanent, the attractiveness of the acquisition would not be affected by the valuation movements. In any case, there are a number of channels through which even permanent valuations differences can affect merger propensities. Kindleberger (1969) observed that transnational M&A can occur because neither expected earnings are higher nor the cost of capital lower. In the case of domestic acquisitions, the firm's earnings potentially increase following permanent currency depreciations which make them more attractive to foreign acquirers. Permanent changes in valuation can lead to cross-border mergers because the value changes lead to a lower cost of capital under foreign control, allowing potential foreign acquirers to bid more aggressively for domestic assets than domestic rival bidders.

5.1 CROSS BORDER M&A STRENGTHS

Both domestic and international mergers provide a number of advantages to the economy of the entities involved in the operation. Among them, there can be found:

- Considerable reduction in operating and/or production costs by reducing staff.
- Rivalry and unfair competition that prevent companies from gaining greater market and economic power and obtaining higher profits disappears.
- Greater profitability as the production tools are better used when they are handled under a single management or are concentrated in the same space, reducing costs considerably.
- The absorbing company becomes a more solid society, enjoying greater commercial credit.
- Guarantee of a more solid and methodical administration with a more centralized audit.
- Improvement of the presence and /or corporate image.
- Increase of the installed capacity.

It is important to bear in mind that the benefits of carrying out M&A are not immediate as the culmination of the merger does not end until the companies are unified and manages to work efficiently as one.

In order to be more specific, according to cross border M&A, they provide advantages that domestic takeovers do not.

- They create a common international market and have greater freedom of movement of capital and technology. They help convergences as long as the former achieves greater diffusion of technology and dissemination of the ideas.

- The open up economic freedom; nowadays, protectionist’s laws and restrictions imposed by countries end up giving way to strong mobility between markets.

- Access to foreign capital, global export markets and advanced technology and at the same time allows less advanced nations to break the monopoly of inefficient and protected domestic producers. The end of the monopoly benefits a large part of the population, especially those who have been excluded from the system due to products’ high prices and low incomes.

- The opening of borders is beneficial for companies as it offers them growth alternatives different from those they already have in the local market. Expanding the size of the market is a great opportunity for growth.

5.2 LIMITATIONS OF CROSS BORDER M&A

M&A carry risk as they are not straightforward transactions. Sometimes they are not very friendly process so it is necessary to make a complete plan of tactics and strategies for these to succeed. The obstacles of the internationalization of companies confirm that the entities are in constant change and competing, making the companies prepared to face any of these situations.

Entities carrying out transactions of this type must first analyze the situation of the target nation through a structured risk management process, with which they will identify, quantify and qualify the possible threats from performing this deal outside the country.

The constraints affecting cross-border mergers and acquisitions can be of legal nature such as tariff or non-tariff barriers; logistical obstacles including coordination and control costs, cultural differences regarding language, behavior or business valuation, causing disagreements beyond the economic framework. Ignorance of opportunities in the new geographical markets or in the distribution structure, also affects negatively the practice of these deals.

More generally, the very structure of the new company may be affected due to the increase in size. The sum of the two administrations may mean that decisions are taken more slowly. "*Not always two plus two ads up to four"* (OKDIARIO, 2017).

In addition, there are financial obstacles related to aspects like currency fluctuations or the exchange rate which must be interpreted according to the trends in the value of the currencies around the world. Regarding exchange rates, it means that if the acquired company has debts or is pending collection in another currency, the acquiring entity or the new formed, may suffer losses due to the variation in the exchange rate.

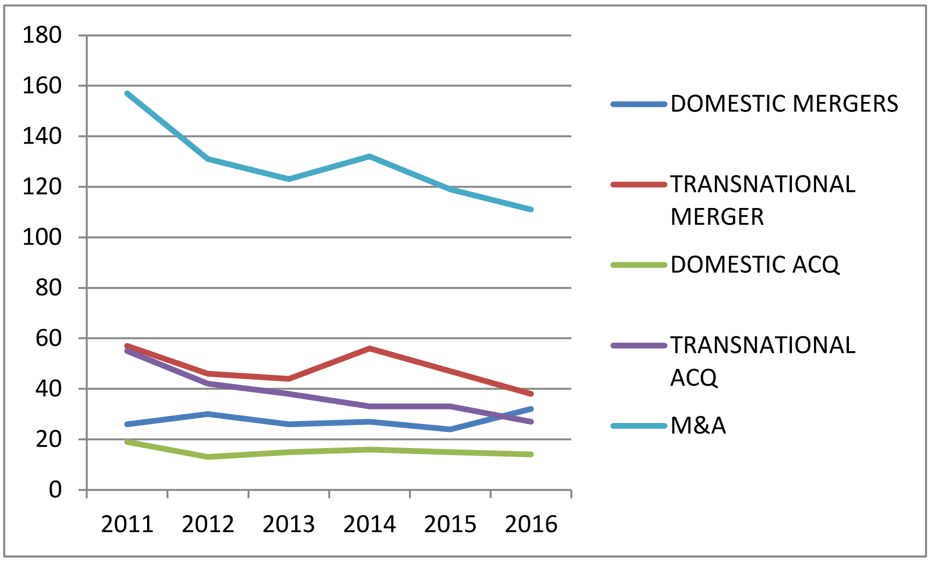
It is important to know how to overcome these limitations and as mentioned above, to have effective risk management in order to be able to analyze the effects of the threats on the company's profitability and thus be able to reduce the level of uncertainty inherent in internationalization, in order to improve the use of the available resources to generate greater value for the company.

6. EMPIRIC AND STATISTICAL STUDY OF THE MERGER WAVE FROM 2011 TO 2016

6.1 DESCRIPTION OF THE M&A FROM 2011 TO 2016

The previous sections have referred to the theory related to M&A. In this section, data on mergers and majority acquisitions made by EU15 listed companies during the period 2011-2016 is analyzed. This data is obtained from SDC (Securities Data Company). The transactions included in the sample are catalogued in the database as Merger (a combination of businesses takes place or 100% of the stock of a public or private company is acquired) and Acquisitions of Majority Interest (the acquirer must have held less than 50% and be seeking to acquire 50% or more, but less than 100% of the target's company' stock). For a transaction to be included in the sample, it is also required information of the share prices of the acquiring entity to be available. As a result, 773 transactions are included in the sample, namely 320 acquisitions and 453 mergers. Within these, they are classified according the country of the target company, domestic and transnational M&A. The following chart shows the evolution of the transactions over the years analyzed.

Figure 6.2. Mergers and acquisitions evolution from 2011 to 2016

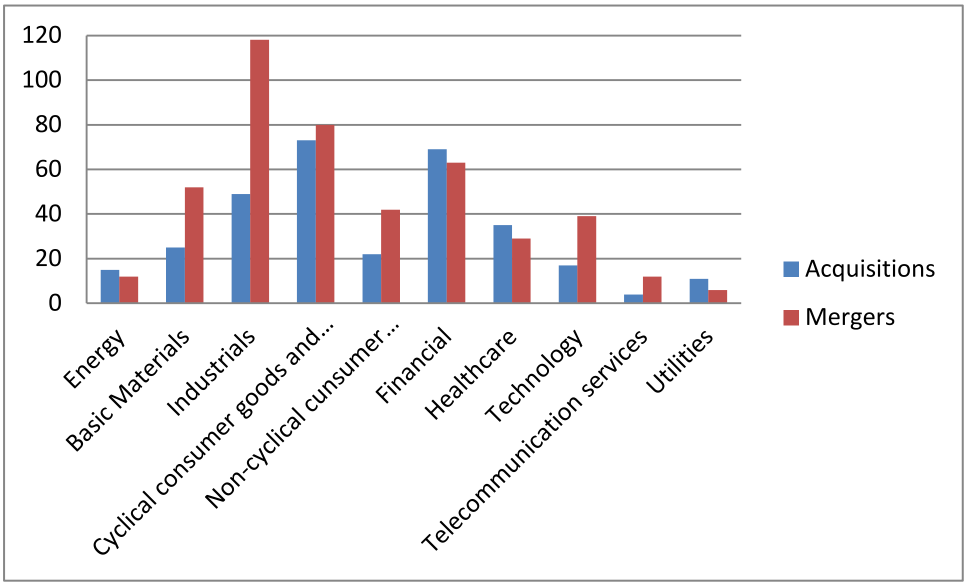


Source: Own elaboration

Domestic mergers represent 21.55% of the total deals while cross-borders constitute 37.25%. In the case of acquisitions, the number of transaction carried out outside of the national framework is also greater than those taking place in the same country of origin, 228 and 92 respectively.

Over the years, as has been seen in the different merger waves, the industries involved in M&A have been changing according to their weight in the economy. During the first four waves production and manufacturing industries have predominated, however in the last two waves they are concentrated in services such as telecommunications or the banking sector. For this period the industrial sectors that predominate are the industrial, financial and cyclical consumer goods and services[6]. Figure 6.3 reveals the proportion of the principal industries grouped according to the TRBC industrial sector[7] classification.

Figure 6.3. Total number of M&A during 2011-2016 by TRBC industrial sector classification.



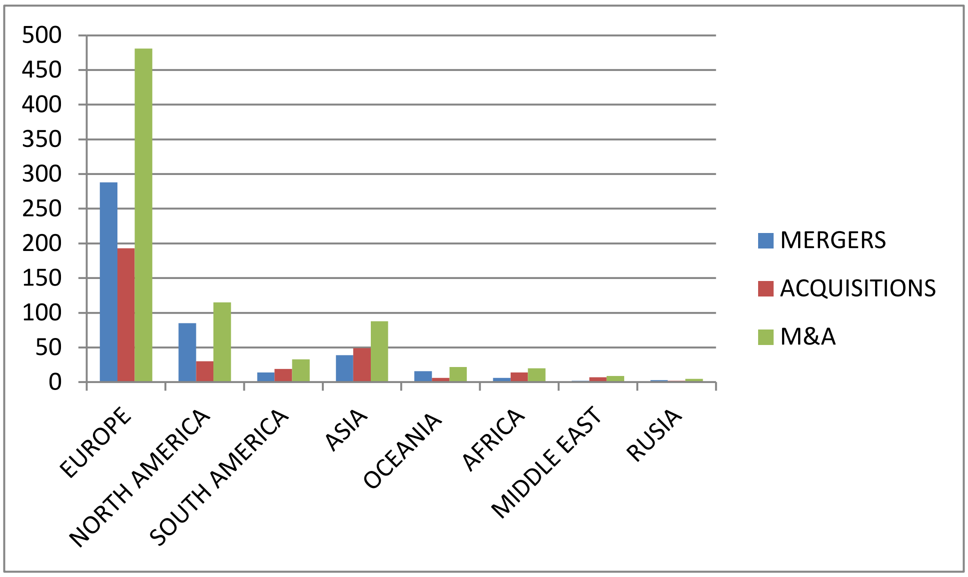
Source: Own elaboration

[6] Cyclical Consumer Goods and Services includes: Automobiles & Auto parts, Textiles &Apparel, Household Goods, Hotels & Entertaining, Media & Publishing and Retailers.
Non-Cyclical Consumer Goods & Services includes: Food & Beverages, Personal & Household Products and Services and Food &Drug Retailing.

[7] TRBC Sector classification: The Thomson Reuters Business Classification is an industry classification of global companies. The classification consists of five levels of hierarchical structure. It consists of 10 economic sectors, 28 business sectors, 54 industry groups, 136 industries and 837 activities.

The main geographical destinations of the M&A are shown below:

Figure 6.4. Main geographic destinations for M&A

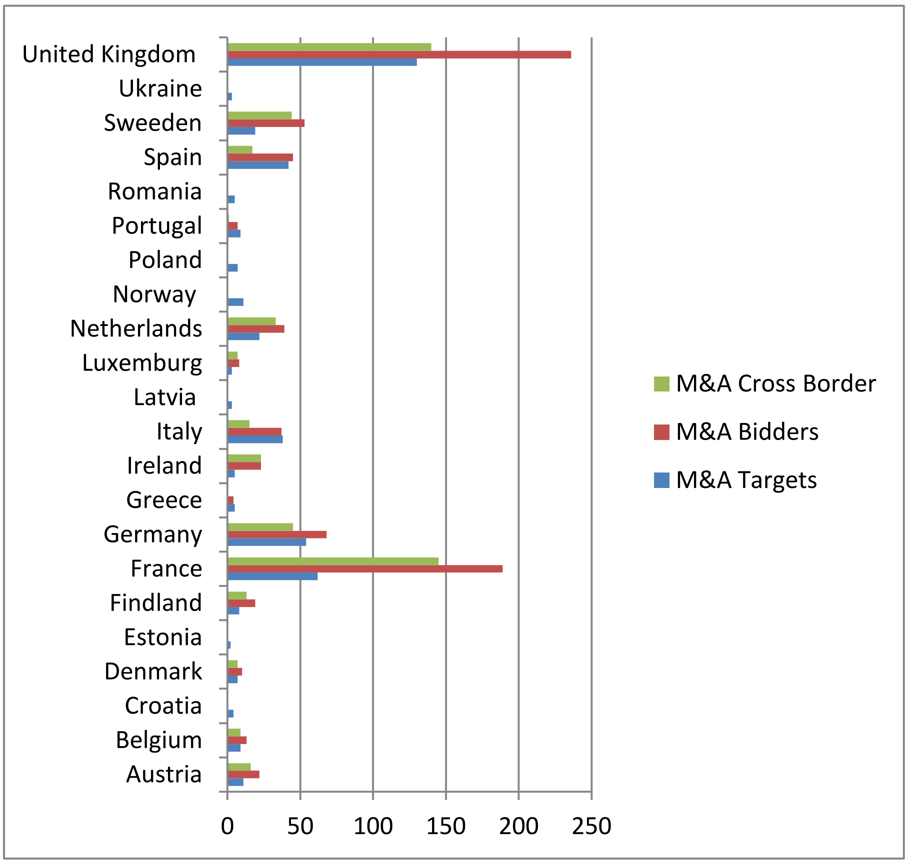


Source: Own elaboration

After de creation of a single market in Europe in 1993, the elimination of borders to the foreign investment was possible, allowing the number of transnational deals between European countries to grow significantly. However, for authors such as Campa (2004), M&A continue to be one of the UE's unfinished businesses.

The EU15 countries participate in these transactions as bidders but also as acquired. The countries that show the greatest buying and selling activity are the United Kingdom and France, due to their greater contribution to the European Union's GDP and their overall economic value. In the case of the United Kingdom, 236 out of 773 transactions take part as acquired, 189 in the case of France. Spain ranks fifth with 45 transactions, after Germany with 68 and Sweden with 53.

Figure 6.5. Total number of M&A during 2011-2016 by country of bidding and target firms.



Source: Own elaboration

6.2 EVENT STUDY: DOMESTIC M&A VERSUS CROSS-BORDER M&A

At this point of the dissertation, a study is carried out of the variation in the initial values of the participating entities in these kinds of deals. Through this study, the impact of an economic event, in this case domestic and cross-border mergers and acquisitions, on the value of the entities concerned can be verified.

Authors such as Mandelker (1974), Fama, Jensen, Fisher and Roll (1969), developed the study of events to perform an analysis based either on its most popular form which is focusing on stock returns, or with respect to trading volumes and volatilities. This case will be focus on the first one.

Following Mackinlay's (1997) guidelines, the study event and the period in which the securities of the participating companies are to be examined must first are defined. In this case, the event will be the domestic and cross-border M&A and the event window will comprise the day of the announcement, the two days before and the two days after it i.e. five days. This impact on the initial value is known as abnormal return which is built as the difference between the observed return and the expected return.

Equation 1. $AR_{i,t} = R_{i\ t} - E(R_{i,t})$

Cumulative abnormal returns are obtained as the sum of all abnormal returns.

Equation 2. $CAR_i\ (t1,t2) = \sum_{t=t1}^{t2} AR_{it}$

As it is already known, one of the main motivations of managers in order to carry out an operation of this importance is the creation of value. There are different methods to verify if the operation has created or has destroyed value, in this case the CAR will be analyzed. It represents the variation in the value of the shareholders of the bidder company during a time interval of five days (-2, +2).

Not all authors come to the same conclusion about value creation. Some agree that the shareholders from the acquiring company during the process of merger or acquisition, may suffer small losses or gains, although most of the time no significant results are observed. However, as it has been mentioned above and after a statistical analysis, the shareholders of the acquired companies do obtain remarkable results with which to reach certain conclusions. The following table will show the changes in value that have been created during the five days of the event window in the totality of the M&A and of the domestic and the transnational ones.

Table 6.2. Cumulative Abnormal Return Analysis in % of the Acquiring Company.

	CAR(-2,+2)
TOTAL M&A (N=773)	
Mean	1,025
Median	0,234
Maximum	84,943
Minimum	-55,271
Standard deviation	7,794
Variance	60,749
DOMESTIC M&A (N=257)	
Mean	1,218
Median	0,379
Maximum	78,871
Minimum	-55,271
Standard deviation	9,115
Variance	83,084
INTERNATIONAL M&A (N=516)	
Mean	0,929
Median	0,177
Maximum	84,943
Minimum	-19,144
Standard deviation	7,055
Variance	49,778

Source: Own elaboration

Table 6.2 shows the value creation generated as a consequence of the announcement of these deals. In general, it can be seen how these transactions produce a positive effect i.e. they have created a positive abnormal return of 1,025% on the value of the shares if no M&A deal had been performed.

Back to the guidelines established by Mackinlay (1997), after having computed the abnormal returns, the null hypothesis to be contrasted and statistics to be used are defined.

First of all, I clarify that the contrast of hypothesis is made between the domestic versus international M&A.

Two statistical tests have been carried out; first an F test for two-sample variances in which it is defined as null hypothesis that the variances are equal in the two samples, versus the alternative hypothesis, the variances are unequal

.

Table 6.3. F test for two-sample variances. Results in %

	Domestic M&A	*Cross-Border M&A*
Mean	1,218	0,929
Variance	82,806	49,778
Observations	257	516
Degrees of freedom	256	515
F	1,664	
P(F<=f) one tail	6,90E-07	
Critical value for F (one tail)	1,191	

Source: Own elaboration

For a significance level of 5%, the P value is lower, 6,90E-07%< 5%. The null hypothesis is rejected, the variances are unequal. After having obtained this result, the t-test is performed for two samples assuming that the variances are unequal with the aim of knowing if there is significant difference between the means of both samples. Table 6.4 presents the obtained results in %.

Table 6.4. T-test for two-sample assuming the variances are unequal

	Domestic M&A	*Cross-Border M&A*
Mean	1,218	0,929
Variance	82,806	49,778
Observations	257	516
Hypothetical differnce of averages	0	
Degrees of freedom	414	
T-statistic	0,447	
P(T<=t) one tail	0,328	
Critical value t (one tail)	1,649	
P(T<=t) two tails	0,655	
Critical value t (two tails)	1,966	

Source: Own elaboration

The null hypothesis proposed here is that there is no significant difference between the two averages, as opposed to the alternative hypothesis which is a significant difference.

In this case, the P value is higher than the significance level; the null hypothesis is accepted therefore there is no significant difference between both measures.

Back to table 6.2, it can be seen that domestic M&A create somewhat more value than international ones, 1,218>0,928%, although it has been seen that the difference is not statistically significant between both groups. The standard deviation in both cases is high, which means that the data are not concentrated or grouped around the value of the mean. This means that although the general trend is towards value growth, there are cases of a large gain, as the maximum value shown in both scenarios 78,87% and 84,94% in domestic and international M&A respectively, but there are also cases of important losses as the minimum values show, -55,27% and -19,14%, in the short period of time studied in this case.

It is important to emphasize that the subsequent value of an entity that arises after a deal of this type is not the object of this dissertation; this will depend on numerous factors that will shape the functioning of this new created company.

7. CONCLUSIONS

This dissertation has presented the main characteristics of M&A and examines the historical context from the end of the 19th century to the present day an then, going on to analyze a sample of this type of deals carried out by EU15 between 2011 and 2016.

Throughout history, there have been M&A transactions. These coincide with crucial moments in the world economic history. The waves have increased knowledge about business management, the impact on the economy and the various regulatory changes in business behavior, as well as new methods of business valuation.

Mergers and acquisitions function as a growth strategy so that the value generated after the entities come together, is greater than the sum of the separate parts. Synergies play a necessary role in this area.

During the last two decades, internationalization has favored the search for business opportunities in foreign markets while promoting competition. It has helped the development of technologies, reductions in transport and communication costs. With respect to the destination of the target entity, both domestic and international mergers are carried out for the same reasons. However, in the case of international mergers, factors interfere that do not affect domestic mergers. Just as there can be a significant increase in the value of the company after an international merger, losses in value can also be greater than for domestic companies due to the existent legal, logistic, commercial and financial factors which intercede during the process.

M&A are not straightforward deals; they are complex and take time. That is why it is necessary to have a good management and strategic team capable of seeing the opportunity for growth, managing the operation and knowing how to solve possible complications during the process.

After the analysis of the M&A carried out during the period 2011 and 2016, it can be seen that the main trade areas of the EU15 are Europe, given that there are not as many restrictions as with the rest of the world and the existing free trade tax advantages.

The number of international transactions exceeds that of domestic ones. In general, both deals increase the value of the acquiring company as a consequence of the announcement of the same.

With all this it can be said that M&A is a good formula for business growth.

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